## ATTACHMENT C

"CHIPS – Fedpoints – Federal Reserve Bank of New York"

found on the internet at http://www.newyorkfed.org/aboutthefed/fedpoint/fed36.html

# CHIPS

- **The Clearing House Interbank Payments System (CHIPS) is a bank-owned, privately operated electronic payments system.**
- **CHIPS is both a customer and a competitor of the Federal Reserve's Fedwire service.**
- **The average daily value of CHIPS transactions is about $1.2 trillion a day.**

The Clearing House Interbank Payments System (CHIPS) is an electronic payments system that transfers funds and settles transactions in U.S. dollars. CHIPS enables banks to transfer and settle international payments more quickly by replacing official bank checks with electronic bookkeeping entries. As of January 2002, CHIPS had 59 members, including large U.S. banks and U.S. branches of foreign banks.

## History

The New York Clearing House Association, a group of the largest New York City commercial banks, organized CHIPS in 1970 for eight of its members with Federal Reserve System membership. Participation in CHIPS expanded gradually in the 1970s and 1980s to include other commercial banks, Edge corporations, United States agencies and branches of foreign banks, and other financial institutions.

Until 1981, final settlement, or the actual movement of balances at the Federal Reserve, occurred on the morning after a transfer. Sharply rising settlement volumes raised concerns that next-day settlement exposed funds unduly to various overnight and over-weekend risks. In August 1981, the Federal Reserve agreed to provide same-day settlement to CHIPS participants through Fedwire, the Fed's electronic funds and securities transfer network.

The number of CHIPS members has fallen from about 140 in the late 1980s, mainly because of consolidations in the banking industry. Membership might have fallen even more sharply if CHIPS had not acted in 1998 to eliminate a requirement that members maintain an office in New York City.

CHIPS is governed by a ten-member board consisting of senior officers of large banks that establishes rules and fees and admits and reevaluates participants. CHIPS handles about 240,000 transactions a day with a total dollar value of about $1.2 trillion. Historically, CHIPS specialized in settling the dollar portion of foreign exchange transactions, and CHIPS estimates that it handles 95

percent of all U.S. dollar payments moving between countries. However, the CHIPS focus has shifted to domestic business since CHIPS introduced intraday settlement in January 2001.

**Intraday Settlement**

Until January 2001, CHIPS conducted all of its settling at the end of the business day. Now, however, CHIPS provides intraday payment finality through a real-time system. CHIPS settles small payments, which can be accommodated by the banks' available balances, individually. Other payments are netted bilaterally (e.g., when Bank A has to pay $500 million to Bank B, and Bank B has to pay $500 million to Bank A), without any actual movement of funds between CHIPS participants.

Other payments are netted multilaterally. Suppose Bank A must pay $500 million to Bank B, and Bank A is also expecting to receive $500 million from Bank C. Without netting, Bank A would send $500 million to Bank B, and it would thus experience a decline in its available cash while it was awaiting the payment from Bank C.

Using the CHIPS netting system, however, Bank A submits its $500 million payment for Bank B to a payments queue, where it waits until Bank C's offsetting payment is received. The effect of matching and netting these payments is that Bank A's cash position is simultaneously reduced by its payment to Bank B and increased by receipt of its payment from Bank C. The overall effect on Bank A's cash position is thus zero.

Payments for which no match can be found are not made until the end of the day, but each payment is final as soon as it is made. To facilitate the working of the intraday netting system, each participant pre-funds its CHIPS account by depositing a certain amount between 12:30 and 9:00 a.m. The size of this "security deposit," which is recalculated weekly, is set by CHIPS based on the number and size of the bank's recent CHIPS transactions, and none of it can be withdrawn during the day. At the end of the day, CHIPS uses these deposits to settle any still-unsettled transactions. Any participant that has a negative closing position at the end of the day (that is, it owes more than what it has in its security deposit) has 30 minutes to make up the difference. The 30-minute period is referred to as the final prefunding period. If any banks do not meet their final prefunding requirement, CHIPS settles as many of the remaining payments as possible with funds that are in the system, and any payments still unsettled must be settled outside of CHIPS.

Banks that have positive closing positions at the end of the day receive the amounts that they are due in the form of Fedwire payments. Because the ultimate CHIPS settlements are provided by Fedwire, CHIPS is a customer, as well as a competitor, of Fedwire. The vast majority of CHIPS members are also Fedwire participants, and the daily value of CHIPS transfers is about 80 percent of Fedwire's non-securities transfers.

CHIPS has recently added electronic data interchange (EDI) capability to its payment message format. EDI allows participants to transmit business information (such as the purpose of a payment) along with their electronic funds transfers.

*April 2002*